Question Bank (I-Scheme)

Name of course: Electrical Power Transmission & Distribution **Unit Test: I**

Subject code: 22419 (EPT) **Semester: IV** **Program: EE**

Chapter 1: BASICS OF TRANSMISSION & DISTRIBUTION (10M)

2 Marks:

1) List standard voltage level used in India.

2) Define: 1) voltage regulation 2) transmission efficiency of transmission line.

4 Marks:

3) Explain any four advantages of high voltage power transmission.

4) Draw the single line diagram of AC electric transmission and distribution system.

5) State the classification of transmission lines based on voltage level and length of lines.

Chapter 2: TRANSMISSION LINE PARAMETERS & PERFORMANCE (16M)

2 Marks:

6) Sate the necessity of transposition of conductors.

7) State the disadvantages of skin effect.

4 Marks:

8) Explain skin effect and proximity effect.

9) Discuss the effect of transmission line parameters on the performance of transmission line (any six points).

10) Draw short transmission line and its phasor diagram for lagging power factor load.

11) Compare Nominal -T and Nominal - π method of medium transmission line.

12) Describe the proximity effect and state its two disadvantages.

13) Draw the circuit diagram and phasor diagram of nominal T method of medium transmission line.

14) A 3 phase line of 4 km length delivers 4000 kW at a p.f of 0.8 lagging to a load the resistance and reactance per km of each conductor are 0.2 ohm and 0.5 ohm respectively if the voltage at the supply end is maintained at 11 kV. Calculate the received end voltage and efficiency of line.

Chapter 3: EXTRA HIGH VOLTAGE TRANSMISSION (14M)

2 Marks:

15) State four HVDC transmission line route on India with their voltage level.

16) State any two limitations of 'EHVAC' transmission.

17) State any two applications of HVDC transmission system.

18) draw the diagram of uni-polar HVDC transmission line.

4 Marks:

19) Draw and explain Bi-polar HVDC transmission line.

20) Explain the Ferrantio effect in detail.

21) State the limitations of EHVAC transmission line.

22) Explain the features of flexible AC transmission line (any four). State types of FACTS controller.

23) Compare EHVAC and HVDC transmission line.

24) Draw layout of Homo-polar HVDC transmission line mention polarity of overhead conductor.

25) Draw the block diagram of HVDC transmission system starting from generator.

……